Datasheet for ABIN3137550

EXTL3 Protein (AA 1-918) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	EXTL3
Protein Characteristics:	AA 1-918
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This EXTL3 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MTGYTMLRNG GVGNGGQTCM LRWSNRIRLT WLSFTLFIIL VFFPLIAHYY LTTLDEADEA GKRIFGPRAG SELCEVKHVL DLCRIRESVS EELLQLEAKR QELNSEIAKL NLKIEACKKS IENAKQDLLQ LKNVISQTEH SYKELMAQNQ PKLSLPIRLL PEKDDAGLPP PKVTRGCRLH NCFDYSRCPL TSGFPVYVYD SDQFAFGSYL DPLVKQAFQA TVRANVYVTE NAAIACLYVV LVGEMQEPTV LRPADLEKQL FSLPHWRTDG HNHVIINLSR KSDTQNLLYN VSTGRHVAQS TFYAAQYRAG FDLVVSPLVH AMSEPNFMEI PPQVPVKRKY LFTFQGEKIE SLRSSLQEAR SFEEEMEGDP PADYDDRIIA TLKAVQDSKL DQVLVEFTCK NQPKPSLPTE WALCGEREDR LELLKLSTFA LIITPGDPHL LISSGCATRL FEALEVGAVP VVLGEQVQLP YHDMLQWNEA ALVVPKPRVT EVHFLLRSLS DSDLLAMRRQ GRFLWETYFS TADSIFNTVL AMIRTRIQIP AAPIREEVAA EIPHRSGKAA GTDPNMADNG DLDLGPVETE PPYASPKYLR NFTLTVTDCY RGWNSAPGPF HLFPHTPFDP VLPSEAKFLG SGTGFRPIGG GAGGSGKEFQ AALGGNVQRE

QFTVVMLTYE REEVLMNSLE RLNGLPYLNK VVVVWNSPKL PSEDLLWPDI GVPIMVVRTE KNSLNNRFLP WNEIETEAIL SIDDDAHLRH DEIMFGFRVW REARDRIVGF PGRYHAWDIP HQSWLYNSNY SCELSMVLTG AAFFHKYYAY LYSYVMPQAI RDMVDEYINC EDIAMNFLVS HITRKPPIKV TSRWTFRCPG CPQALSHDDS HFHERHKCIN FFVKVYGYMP LLYTQFRVDS VLFKTRLPHD KTKCFKFI

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

The big advantage of ordering our **made-to-order proteins** in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Product Details

Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	EXTL3
Alternative Name:	Extl3 (EXTL3 Products)
Background:	Exostosin-like 3 (EC 2.4.1.223) (Glucuronyl-galactosyl-proteoglycan 4-alpha-N-acetylglucosaminyltransferase) (Multiple exostosis-like protein 3),FUNCTION: Glycosyltransferase which regulates the biosynthesis of heparan sulfate (HS) (PubMed:19336225). Initiates HS synthesis by transferring the first N-acetyl-alpha-D-glucosamine (alpha-GlcNAc) residue (GlcNAcT-I activity) to the tetrasaccharide linker (GlcA-Gal-Gal-Xyl-)Ser core linker. May also transfer alpha-GlcNAc residues during HS elongation (GlcNAcT-II activity). Lacks glucuronyl transferase II (GlcAT-II) activity. Important for both skeletal development and hematopoiesis, through the formation of HS proteoglycans (HSPGs) (By similarity). Through the synthesis of HS, regulates postnatal pancreatic islet maturation and insulin secretion (PubMed:19336225). {ECO:0000250|UniProtKB:O43909, ECO:0000269|PubMed:19336225}., FUNCTION: Receptor for REG3A, REG3B and REG3G, induces the activation of downstream signaling pathways such as PI3K-AKT or RAS-RAF-MEK-ERK signaling pathway (PubMed:28811323, PubMed:36240758, PubMed:35263589). Required for the function of REG3A in regulating keratinocyte proliferation and differentiation (By similarity). Required for the inhibition of skin inflammation mediated by REG3A through the activation of PI3K-AKT-STAT3 pathway (By similarity). Required for the function of REGA and REG3G in glucose tolerance in pancreas (PubMed:36240758). Expressed in microglia, is activated by nociceptor-derived REG3G in response to endotoxins, leading to the inhibition of kynurenine pathway to prevent endotoxic death (PubMed:35263589). {ECO:0000250|UniProtKB:O43909, ECO:0000269|PubMed:28811323, ECO:0000269|PubMed:35263589, ECO:0000269|PubMed:36240758}.
Molecular Weight:	104.5 kDa
UniProt:	Q9WVL6
Pathways:	Glycosaminoglycan Metabolic Process, ER-Nucleus Signaling

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months